

Intersections: Undergraduate Research Presentation Award Winners  
Fall 2025 Intersections

**Arts and Humanities**

1st Gigi Sengupta. *A Narrative Approach to Establishing Methods of Engaging the Next Generation of Correctional Physicians*. Faculty Mentor: Monica Gerrek, Department of Bioethics

2nd Erik Watka. *Examining the Association between Food Resource Management and Food Security*. Faculty Mentor: Melissa Prescott, Department of Nutrition

3rd Mindy Cao. *Public-Health Policy Levers to Improve Depression Treatment Access and Outcomes among Low Socio-Economic Status Populations in the United States*. Faculty Mentor: Rachel McClaine, Department of Psychological Sciences

**Computer Science & Data Science**

1st Taranveer Anand, Salma Bhar, Vedant Gupta, Adam Hamdan, Firas Khalife, Apeksha Malik, Vinlaw Mudehwe, and Ashwin Saraswatula. *SeeCare: An AI-Powered Memory Support System for Dementia Patients*. Faculty Mentor: Shuai Xu, Department of Computer and Data Sciences

2nd Rishi Jonnalagadda. *Democratizing and Accelerating Chart Review: A Clinician-Operable Prompt Design System for LLM-Enabled Electronic Medical Record Data Extraction*. Faculty Mentor: Nicholas Heller, Department of Cancer Biology

3rd Sohan Muppidi. *CarpalVision: A Digital Rehabilitation Platform for Carpal Tunnel Syndrome Recovery and Prevention*. Faculty Mentor: Rajendra Muppidi, Department of Computer and Data Sciences

**Engineering**

1st Amos Langsner. *PrintBot - Autonomous Mobile Robot to Operate 3D Printers*. Faculty Mentor: Will Hasting, Department of Mechanical and Aerospace Engineering

2nd Irene Bhunia, Hannah Driscoll, Lucas Romero, Melis Sahin, and Jerry Yang. *A Safer and More Inclusive Phototherapy Device for Treatment of T-Cell Lymphoma*. Faculty Mentor: Matthew Williams, Department of Biomedical Engineering

3rd Katherine Berkner. *Development of an Endothelialized Chip Model for Thromboinflammation*. Faculty Mentor: Anirban Sen Gupta, Department of Biomedical Engineering

**Life Sciences**

1st Anshul Nayak. *Synthesis of Gene-Editing DNA Origami Nanoparticles*. Faculty Mentor: Divita Mathur, Department of Chemistry

2nd Fiona Brooks. *Sterile versus pathogen inflammation in the dual-disease TNFΔARE mouse*. Faculty Mentor: Bianca Islam, Department of Digestive Health Research Institute

3rd Emily Katoni. *Investigating the role of WNK1 in Acute Myeloid Leukemia*. Faculty Mentor: Parameswaran Ramakrishnan, Department of Pathology

## **Nursing, Social Science, & Management**

1st Farhan Mohammad and Liam McKay. *Evaluating Pediatric Disaster Preparedness Resources for Pediatric Disaster Centers of Excellence Websites*. Faculty Mentor: Carolyn Landis, Department of Psychological Sciences

2nd Kwabena Agyemang. *Life Factors That Protect Well-being Among U.S. Adults with Activities of Daily Living Limitations and Low Mental Health*. Faculty Mentor: Jenny Brynjarsdottir, Department of Mathematics, Applied Mathematics, and Statistics

3rd Gabrielle Santiago. *The emergence of AI Psychosis in a World of Rapid Technological Progress*. Faculty Mentor: Vera Tobin, Department of Cognitive Science

## **Physical Sciences & Mathematics**

1st Dhoopshikha Basgeet. *Predictive Framework to Indicate the Age of Plastics for Proper Recycling*. Faculty Mentor: Metin Karayilan, Department of Chemistry

2nd Rosy Bae. *Loss of TET2 Increases MHC Class I Expression in AML and Breast Cancer*. Faculty Mentor: Babal Jha, Department of Molecular Medicine

3rd Zachariah Jones. *Engineering Epsilon-Near-Zero Metamaterials for Enhanced Photon Upconversion in Perovskite Nanocrystals*. Faculty Mentor: Giuseppe Strangi, Department of Physics

3rd Kalli Wall. *Testing Alternative Electron Transport Layers for use in Organic Photovoltaics*. Faculty Mentor: Genevieve Sauve, Department of Chemistry